"ATENT COOPERATION TR" TY

		From the INTERNATIONAL BUREAU			
PCT	To:				
NOTIFICATION OF THE RECORDING OF A CHANGE (PCT Rule 92bis.1 and Administrative Instructions, Section 422) Date of mailing (day/month/year) 15 October 2001 (15.10.01)	GOWLING LAFLEUR HENDERSON LLP Suite 4900 Commerce Court West Toronto, Ontario M5L 1J3 CANADA				
Applicant's or agent's file reference	<u> </u>				
5352-89		IMPORTANT N	IOTIFICATION		
International application No. PCT/CA00/01005		nal filing date (day/mor August 2000 (31.08.	• •		
The following indications appeared on record concerning: the applicant the inventor	X the ager	nt the co	mmon representative		
Name and Address BERESKIN & PARR 40th Floor		State of Nationality Telephone No.	State of Residence		
40 King Street West Toronto, Ontario M5H 3Y2 Canada		416 364 7311 Facsimile No.			
		416 361 1398			
		Teleprinter No.			
2. The International Bureau hereby notifies the applicant that	the following	change has been recor	ded concerning:		
the person the name the ad	r	the nationality	the residence		
Name and Address		State of Nationality	State of Residence		
GOWLING LAFLEUR HENDERSON LLP Suite 4900		Telephone No.			
Commerce Court West Toronto, Ontario M5L 1J3		416 364 7311			
Canada	ĺ	Facsimile No.			
		416 361 1398			
		Teleprinter No.	,		
3. Further observations, if necessary: New agent	_				
4. A copy of this notification has been sent to:					
X the receiving Office	Г	the designated Office	ces concerned		
the International Searching Authority	֓֟֟ <u>֓</u> ֡֓֞֓֓֓֞֞֞֓֓֓֡֡	the elected Offices			
the International Preliminary Examining Authority		other:			
The later wind the state of the	Authorized of	officer			
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland			é DEVILLARD		
Facsimile No.: (41-22) 740.14.35	Telephone N	No.: (41-22) 338.83.38			

Form PCT/IB/306 (March 1994)



(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	(Form PCT/ISA/2	of Transmittal of International Search Report (20) as well as, where applicable, item 5 below.					
5352-89	ACTION						
International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)					
PCT/CA 00/01005 .	31/08/2000	31/08/1999					
Applicant							
CME TELEMETRIX INC.							
This International Search Report has been according to Article 18. A copy is being tra	n prepared by this International Searching Authansmitted to the International Bureau.	nority and is transmitted to the applicant					
This International Search Report consists	of a total of 3 sheets.	•					
! 55	a copy of each prior art document cited in this	report.					
		· · · · · · · · · · · · · · · · · · ·					
1. Basis of the report	international approximation and the house	nic of the international application in the					
	international search was carried out on the bases ess otherwise indicated under this item.	ы от те теталона аррисалон т ше					
the international search w Authority (Rule 23.1(b)).	as carried out on the basis of a translation of the	he international application furnished to this					
b. With regard to any nucleotide an was carried out on the basis of the		ternational application, the international search					
l 	nal application in written form.						
filed together with the inte	rnational application in computer readable form	n.					
furnished subsequently to	this Authority in written form.						
l <u>=</u>	this Authority in computer readble form.						
	sequently furnished written sequence listing d s filed has been furnished.	oes not go beyond the disclosure in the					
the statement that the info furnished	rmation recorded in computer readable form is	s identical to the written sequence listing has been					
2. Certain claims were four	nd unsearchable (See Box I).						
3. Unity of invention is lact	· · ·						
4. With regard to the title,	• •						
the text is approved as su	bmitted by the applicant.	- -					
	hed by this Authority to read as follows: A SPECTROSCOPIC DEVICE						
HETHOD OF GALIBRATING	A STECTROSCOTIC DEVICE						
·							
5. With regard to the abstract,							
X the text is approved as su	• • • • • • • • • • • • • • • • • • • •						
	ned, according to Rule 38.2(b), by this Authorit date of mailing of this international search rep						
6. The figure of the drawings to be publi	shed with the abstract is Figure No.	2					
X as suggested by the applic	cant.	None of the figures.					
because the applicant faile	ed to suggest a figure.						
because this figure better	characterizes the invention.						

PATENT COOPERATION TREA

RECEIVED

BERESKIN & PARR

From the

INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

BERESKIN & PARR 40 King Street West, 40th Floor TORONTO, ONTARIO M5H 3Y2 CANADA

THE INTERNATIONAL PRELIMINARY **EXAMINATION REPORT**

(PCT Rule 71.1)

Date of mailing

(day/month/year)

26.07.2001

Applicant's or agent's file reference

5352-89

IMPORTANT NOTIFICATION

International application No. PCT/CA00/01005

International filing date (day/month/year) 31/08/2000

Priority date (day/month/year)

31/08/1999

Applicant

CME TELEMETRIX INC.

- 1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
- 2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
- 3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

AIIC - 1 sing

Name and mailing address of the IPEA/

European Patent Office D-80298 Munich

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Fax: +49 89 2399 - 4465

Weber, R

Authorized officer

Tel.+49 89 2399-2382



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's	or agent's file reference		See Notification of Transmittal of International
5352-89	•	FOR FURTHER ACTION	Preliminary Examination Report (Form PCT/IPEA/416)
Internation	al application No.	International filing date (day/mor	hth/year) Priority date (day/month/year)
PCT/CA	00/01005	31/08/2000	31/08/1999
Internation G01N21		r national classification and IPC	
Applicant			·
CME TE	LEMETRIX INC.		
and i	s transmitted to the applica	nt according to Article 36.	ed by this International Preliminary Examining Authority
2. This	REPORT consists of a tota	l of 8 sheets, including this cover	sheet.
b	een amended and are the		the description, claims and/or drawings which have containing rectifications made before this Authority tions under the PCT).
Thes	e annexes consist of a tota	l of sheets.	
	<u> </u>		
3. This r	eport contains indications i	relating to the following items:	
	☑ Basis of the report		
	☐ Priority		
Ш	☐ Non-establishment of	of opinion with regard to novelty, ir	ventive step and industrial applicability
IV	Lack of unity of inve	ntion , i	
. V		t under Article 35(2) with regard to ations suporting such statement	novelty, inventive step or industrial applicability;
Vi	☐ Certain documents		
VII	☑ Certain defects in th	e international application	
VIII	☑ Certain observations	on the international application	
Date of sub	mission of the demand	Date of	completion of this report
20/02/20	01	26.07.2	2001
	nailing address of the internation examining authority: European Patent Office	anal Authori	zed officer

Meyer, F

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D-80298 Munich

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/CA00/01005

I.	Ba	asis of the report							
1	the an	With regard to the elements of the international application (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)): Description, pages:							
	1-	15	as originally filed			•			
	CI	aims, No.:							
	1-	11	as originally filed						
	Dr	awings, sheets:		•					
	1/5	5-5/5	as originally filed		:				
			-						
2.			guage, all the elements n international application				the		
	Ťhe	ese elements were	available or furnished to t	his Authority in the f	following language:	, which is:			
		the language of a	translation furnished for t	the purposes of the i	international search	(under Rule 23.1(b)).			
		•	ublication of the internation			()	•		
			translation furnished for t	• • • • • • • • • • • • • • • • • • • •	, , , , , , , , , , , , , , , , , , , ,	examination (under	Rule		
3.			eleotide and/or amino ac y examination was carrie						
•		contained in the im	tomotional application in						
		•	temational application in the intemational applicat		dabla farm	•			
			ently to this Authority in v		able lom.				
		•	ently to this Authority in o		orm				
		The statement tha	t the subsequently furnish oplication as filed has be	ned written sequenc		beyond the disclosu	re in		
		•	t the information recorded		ble form is identical	to the written sequen	се		
4.	The	-	resulted in the cancellati	on of:	-				
		the description,	pages:						

Nos.:

☐ the claims,

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/CA00/01005

		the drawings,	sheets:							
5.		This report has been considered to go beyo		-	•			een made, sir	nce they ha	ve beer
		(Any replacement she report.)	et contai	ning such	amendi	nents must b	e referred to u	nder item 1 a	nd annexe	d to this
6.	Ado	litional observations, if	necessar	y:						
٧.		soned statement und tions and explanation			_	,	, inventive st	ep or industr	rial applica	bility;
1.	Stat	ement								
	Nov	relty (N)	Yes: No:	Claims Claims	1-11			•		
	Inve	entive step (IS)	Yes: No:	Claims Claims	2-10 1,11					
	Indu	strial applicability (IA)	Yes: No:	Claims Claims	1-11					

2. Citations and explanations see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted: see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made: see separate sheet

Reference is made to the following documents:

D1: G.W. Small et al., Anal. Chem. 65 (1993) 3279-3289

D2: US 5 680 320 D3: US 5 606 164 D4: US 5 362 965 D5: US 5 576 544

Re Item V

1.

- The present application does not meet the requirements of Article 33(1) PCT, 2. because the subject-matter of claims 1 and 11, as far as it can be understood (see paragraph 4. below), does not appear to involve an inventive step in the sense of Article 33(3) PCT.
- 2.1. Document D1, which is considered to represent the closest prior art, discloses a method of calibrating an NIR spectrometer for providing a non-invasive measurement of an analyte level in a sample (abstract, I.3-7; p.3279, right col., §3, I.2,8; p.3280, left col., §4, I.7 - p.3280, right col., §1, I.3), comprising: providing a plurality of calibration algorithms (p.3281, left col., §1, l.1-3; p.3282, left col., §3, I.1-3); taking a set of non-invasive measurements on said sample with said spectroscopic device (p.3281, left col., §1, l.3-6); calculating a set of analyte levels for each of the algorithms "in response to" the set of non-invasive measurements (p.3282, left col., §4, I.3-4; Fig.4), each of the sets of analyte levels "being characterized by" a variability range (see the columns "conc (mM)" in Table I on p.3280), a slope (see Fig.4), an "R2" (see Table III) and a standard error of prediction (p.3282, left col., §4, I.4-5; Table III); and selecting an appropriate calibration algorithm by using a "suitability score" based on the variability range (p.3281, left col., §1, l.10-12; p.3283, left col., §1 l.4-7) and the standard error of prediction for each of the sets of analyte levels (p.3282, left col., §4, I.7-9). The subject-matter of independent claim 1 of the present application differs from the method disclosed in D1 only in that, for selecting an appropriate calibration algorithm, a "suitability score" is used which is additionally based on the slope and <u>"R</u>2".

The problem to be solved by the present invention may therefore be regarded as providing an improved "suitability score" for selecting an appropriate calibration algorithm.

The skilled person would contemplate combining the teaching of D1 with the teaching of D2 which also discloses a method of calibrating an NIR spectrometer (col.6 l.1,38-39). In D2, a calibration model is developed (see abstract, l.6) and it is explicitly stated that for a "very good validity and preciseness of the (calibration) model" (see col.11 l.66-67), "ideally, r² (i.e. the unadjusted correlation coefficient). and k (i.e. the slope of the fit curves) should be as close to 1 as possible; while SEP (i.e. the standard error of prediction) ... should be as close to 0 as possible" (see col.11 l.63-65).

In view of the paragraph above, it would be obvious for the skilled person to additionally take into account the slope and "r2" when selecting an appropriate calibration algorithm. Thus, the subject-matter of claim 1 does not appear to involve an inventive step and does not satisfy the criterion set forth in Articles 33(1) and 33(3) PCT.

- 2.2. Dependent claim 11 does not appear to contain any additional feature which, in combination with the features of claim 1, meets the requirements of the PCT with respect to inventive step, since its additional feature is already disclosed in D1 (see p.3280, left col., §4, I.7 - p.3280, right col., I.3; p.3279, right col., §3, I.2,8).
- 2.3. Documents D3-D5 each disclose a method of calibrating a spectroscopic device for providing a non-invasive measurement of an analyte level in a sample comprising all the features of independent claim 1 of the present application, except that only the standard error of prediction (D3: col.13 l.61 - col.14 l.13), only the standard error of prediction and "R" (D4: col.15 l.21-25) or only "R2" (D5: col.4 1.40-52) is used to select an appropriate calibration algorithm out of a plurality of provided calibration algorithms.

Combination of the teachings of either D3, D4 or D5 with D2 appears to be obvious (Article 33(3) PCT) for reasons similar to those already pointed out in paragraph 2.1. above.

2.4. The subject-matter of dependent claim 2 or dependent claim 7 is neither disclosed nor hinted at in any of the available prior art documents. Both claims hence would meet the requirements of the PCT with respect to novelty (Article

2.5. Claims 3-6 and 8-10 are dependent on claims 2 and 7, respectively, and therefore also satisfy the requirements of Article 33(1) PCT.

33(2) PCT) and inventive step (Article 33(3) PCT).

Re Item VII

- 3.1. Independent claim 1 is not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
- 3.2. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1-D5 is not mentioned in the description, nor are these documents identified therein.
- 3.3. In the description (p.7 l.34-35), the applicant incorporates by reference the disclosure of a US patent. If the applicant has the opinion, that the said disclosure contains matter which is essential for carrying out the invention as meant by Article 5 PCT, the applicant should expressly incorporate this matter into the description. Otherwise, this passage should be deleted from the description (see the PCT Guidelines II 4.17).
- 3.4. In order to make clear that the results shown in figures 1 and 4 are achieved using a known calibration method, the term "prior art" should be added to these figures.

Re Item VIII

4. The application does not meet the requirements of Article 6 PCT, because claims 1, 7 and 8 are not clear.

- EXAMINATION REPORT SEPARATE SHEET
- 4.1. In claim 1 ("calculating a predicted set of analyte levels", p.16 l.8), it is not at all clear in what way the said set of analyte levels should be predicted.
- 4.2. Due to the vague formulation in claim 1 "calculating a ... set of analyte levels ... in response to the set of non-invasive measurements" (p.16 l.8-10), it is not clear, whether (and how) the said measurements are used to calculate said set of analyte levels.
- 4.3. The formulation in claim 1 "each of the predicted sets of analyte levels being characterized by a variability range, a slope, an R2 ... and a standard error of prediction" (p.16 l.10-13) does not include that the said variability range, slope, R² and standard error of prediction are determined, but which appears to be essential for the proceeding "selection step" (p.16 l.14-17). The scope of the claim hence is obscure.
- 4.4. In claim 1 the terms "variability range", "slope" and "standard error of prediction" are indefinite since they have not been defined in relation to any variable (see p.12 l.8, p.10 l.14-15, p.12 l.1-3).
 - The term "R2" is indefinite, since the proceeding explanation given in brackets is not comprised in the subject-matter of the claim. Only reference numerals should be placed in brackets, see Rule 6.2(b) PCT. In this case, it appears that "R2" should be placed in brackets and said explanation should be incorporated into the text of the claim.
 - Even further confusing is the fact that said explanation given in brackets contradicts the definition of "R" given in the description on p.12 I.10-11.
- 4.5. The feature "a suitability score based on the variability range, the slope, the R2 and the standard error of prediction ..." in claim 1 (p.16 l.15-17) is obscure for several reasons:
 - The term "suitability score" does not appear to be a term well-known in the art. The skilled person would not know what has to be understood by this term.
 - The expression "a suitability score based on ..." is vague and indefinite. (ii)
 - The said feature furthermore contradicts the description (see p.12 I.26) where the only definition of a said "suitability score" is given, but without

taking into account a said "variability range".

- 4.6. The feature "rejecting data sets that are not suitable for calibration" in claim 7 (p.17 l.28) is indefinite since a criteria when to reject a said data set is missing.
- 4.7. The feature "parameters other than said analyte" in claim 8 is vague and indefinite and as such renders the scope of the claim unclear.
- The subject-matter of claims 4-6 and 8 is not supported by the description as 5. required by Article 6 PCT. A respective statement should have been added to the description (Rule 5.1(a)(iii) PCT).



RECEIVED

DEC 1 4 2000

PCT

BERESKIN & PARR

From the INTERNATIONAL SEARCHING AUTHORITY

To: BERESKIN & PARR 40 King Street West, 40th Floor TORONTO, ONTARIO M5H 3Y2

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION

CANADA (PCT Rule 44.1) Date of mailing (day/month/year) 12/12/2000 Applicant's or agent's file reference FOR FURTHER ACTION 5352-89 See paragraphs 1 and 4 below International application No. International filing date (day/month/year) PCT/CA 00/01005 31/08/2000 Applicant CME TELEMETRIX INC. 1. X The applicant is hereby notified that the International Search Report has been established and is transmitted herewith. Filing of amendments and statement under Article 19: The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46): The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet. D.O. ENT. Feb. 12, 2001 FA Where? Directly to the International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Fascimile No.: (41-22) 740.14.35 For more detailed instructions, see the notes on the accompanying sheet. The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith. With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that: the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices. no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made. Further action(s): The applicant is reminded of the following: Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication. Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later). Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the International Searching Authority European Patent Office, P.B. 5818 Patentlaan 2

NL-2280 HV Rijswijk

Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,

Fax: (+31-70) 340-3016

Authorized officer

Christine Voigt



These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international polication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been its filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

Notes to Form PCT/ISA/220 (first sheet) (January 1994)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

- [Where originally there were 48 claims and after amendment of some claims there are 51]:
 "Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers;
 claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
- [Where originally there were 15 claims and after amendment of all claims there are 11]: "Claims 1 to 15 replaced by amended claims 1 to 11."
- [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
 "Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
 "Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
- 4. [Where various kinds of amendments are made]: "Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international appplication is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the same time of filing the amendments with the International Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62.2(a), first sentence).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

PCT/CA00/01005

PCT

NOTIFICATION CONCERNING SUBMISSION OR TRANSMITTAL

(PCT Administrative Instructions, Section 411)

From the INTERNATIONAL BUREAU

DEC 27 2000

BERESKIN & PARR Rereskin & Pari 40 King Street West

OF PRIORITY DOCUMENT 40th floor Toronto, Ontario M5H 3Y2 CANADA

Date of mailing (day/month/year) 01 December 2000 (01.12.00)	
Applicant's or agent's file reference 5352-89	IMPORTANT NOTIFICATION
International application No.	International filing date (day/month/year)
PCT/CA00/01005	31 August 2000 (31.08.00)
International publication date (day/month/year)	Priority date (day/month/year)
Not yet published	31 August 1999 (31.08.99)

CME TELEMETRIX INC. et al

- The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR", in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
- This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
- An asterisk(*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
- The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

Priority date Priority application No. Country or regional Office Date of receipt or PCT receiving Office of priority document 31 Augu 1999 (31.08.99) 60/151,536 US 28 Nove 2000 (28.11.00)

> The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

Tessadel PAMPLIEGA

Telephone No. (41-22) 338.83.38

Facsimile No. (41-22) 740.14.35

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From the INTE TIONAL PRELIMINARY EX.	AMINING AUTHORIT	Υ	PCT	MAR 2 8 2001		
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BERESKIN & PARR 40 King Street West, 40t TORONTO, ONTARIO M5H 3Y2 CANADA	ch Floor ?	NOTIFICATION OF RECEIPT OF DEMAND BY COMPETENT INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY (PCT Rules 59.3(e) and 61.1(b), first sentence and Administrative Instructions, Section 601(a)) Date of mailing				
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5352-89		IMPO	DRTANT NOTIFICATIO	ON		
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CME TELEMETRIX INC.						
2. This date of receipt is: the actual date of receipt the actual date of receipt the actual date of receipt the date on which this Au (Form PCT/IPEA/404), r 3. ATTENTION: That date of receipt the date of receipt the date of the date of receipt the date of the date of receipt the dat	of the demand by this Au of the demand on behalf of thority has, in response to eccived the required correct exipt is AFTER the expirat does (do) not have the effort later in some Offices) in 20 months from the pri-	of this Authority (Rule to the invitation to corrections. tion of 19 months from feet of postponing the (Article 39(1)). Therefore	of 59.3(e)). The priority date. Consentry into the national plane, the acts for entry into	equently, the nase until 30		
(If applicable) This notified on:	cation confirms the inform	nation given by telepho	one, facsimile transmissio	n or in person		
4. Only where paragraph 3 applies, a co	py of this notification has	been sent to the Inter	national Bureau.	SUSCHES PAIR		
Name and mailing address of the IPEA/		Authorized officer	/3	J. J		
European Patent Office D-80298 Munich Tel. (+49-89) 2399-0, Tx: 5236: Fax: (+49-89) 2399-4465	56 epmu d	KAUFMANN S B	WOES BREVER	Me Mayor		

Tel. (+49-89) 2399-2975

PCT

NOTICE INFORMING THE APPLICANT OF THE COMMUNICATION OF THE INTERNATIONAL APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

From the INTERNATIONAL BUREAU

To:

CANADA

BERESKIN & PARR 40 King Street West 40th floor Toronto, Ontario M5H 3Y2

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BERESKIN & PARR

Date of mailing (day/month/year)

08 March 2001 (08.03.01)

Applicant's or agent's file reference

5352-89

IMPORTANT NOTICE

International application No. International filing date (day/month/year) PCT/CA00/01005

31 August 2000 (31.08.00)

Priority date (day/month/year) 31 August 1999 (31.08.99)

Applicant

CME TELEMETRIX INC. et al

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

CA,EP,JP

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on 08 March 2001 (08.03.01) under No. WO 01/16579

REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

J. Zahra

Telephone No. (41-22) 338.83.38

Facsimile No. (41-22) 740.14.35

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REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

PCT/CA 0 0 / 0 1 0 0 5

International Application No. 2000 (3 1 · 08 · 00)

International Filing Date

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference (if desired) (12 characters maximum) 5352-89 Box No. 1 TITLE OF INVENTION METHOD FOR IDENTIFICATION OF ALGORITHM FOR ANALYTE DETERMINATION Box No. II APPLICANT Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State This person is also inventor. of residence is indicated below.) Telephone No. CME TELEMETRIX INC. 519-886-8440 560 Parkside Drive Facsimile No. Waterloo, Ontario 519-886-8442 N2L 5Z4 Canada Teleprinter No. State (that is, country) of nationality: State (that is, country) of residence: CA CA This person is applicant all designated States except the United States of America all designated the United States the States indicated in the Supplemental Box X for the purposes of: States FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S) Box No. III Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State This person is: of residence is indicated below.) applicant only CADELL, Theodore E. 13 Elgin Street East applicant and inventor Conestogo, Ontario inventor only (If this check-box NOB 1NO Canada is marked, do not fill in below.) State (that is, country) of nationality: State (that is, country) of residence: CA CA This person is applicant all designated all designated States except the United States of America the United States of America only the States indicated in X for the purposes of: the Supplemental Box Further applicants and/or (further) inventors are indicated on a continuation sheet. Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE The person identified below is hereby/has been appointed to act on behalf agent common representative of the applicant(s) before the competent International Authorities as: Name and address: (Family name followed by given name; for a legal entiry, full official designation. The address must include postal code and name of country.) Telephone No. (416) 364-7311 Bereskin & Parr Facsimile No. 40 King Street West 40th Floor (416) 361-1398 Toronto, Ontario, Canada Teleprinter No. M5H 3Y2 Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the

space above is used instead to indicate a special address to which correspondence should be sent.

		Sheet No		2	T / JA	00/0100		
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		Republic of Rolea		ty to t	he PCT after issuance of this sheet:			
Pre	cauti	onary Designation Statement: In addition to the designat	ion	s mad	e above, the applicant also makes unde	er Rule 4.9(b) all other		

designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time limit.)

Box No. VI PRIORITY C	LAIM		Further prio	rity claims are indicated	in the Supplemental Box.		
Filing date	Number		Where earlier application is:				
of earlier application	of earlier application	of earlier application		regional application:*	international application:		
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31 August 1999	60/151,536		US	• -			
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* Where the earlier application is a Convention for the Protection of In	an ARIPO application, it	is mai	ndatory to indicate in the Su	pplemental Box at least on d (Rule 4 10/h)(ii)) See St	e country party to the Paris		
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CA 00/01005

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G01N21/35

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

 $\begin{array}{ccc} \text{Minimum documentation searched (classification system followed by classification symbols)} \\ \text{IPC 7} & \text{G01N} & \text{A61B} \end{array}$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	SMALL G W ET AL: "STRATEGIES FOR COUPLING DIGITAL FILTERING WITH PARTIAL LEAST-SQUARES REGRESSION: APPLICATION TO THE DETERMINATION OF GLUCOSE IN PLASMA BY FOURIER TRANSFORM NEAR-INFRARED SPECTROSCOPY" ANALYTICAL CHEMISTRY,US,AMERICAN CHEMICAL SOCIETY. COLUMBUS, vol. 65, no. 22, 15 November 1993 (1993-11-15), pages 3279-3289, XP000503258 ISSN: 0003-2700	1,11
A	page 3279, right-hand column -page 3283, left-hand column; figure 4; tables 1,3 abstract/	7,9,10

Further documents are listed in the continuation of box C.	χ Patent family members are listed in annex.
Special categories of cited documents: A* document defining the general state of the art which is not considered to be of particular relevance E* earlier document but published on or after the international filling date L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O* document referring to an oral disclosure, use, exhibition or other means P* document published prior to the international filling date but later than the priority date claimed	 'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention 'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone 'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. '&' document member of the same patent family
Date of the actual completion of the international search 29 November 2000	Date of mailing of the international search report 12/12/2000
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Meyer, F

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International	Application No
CA	00/01005

ategory °	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
alegury	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 680 320 A (HELMER ULLA ET AL) 21 October 1997 (1997-10-21)	1,11
4	column 5, line 65 -column 6, line 67 abstract; figures 1-5	2,9,10
A	US 5 606 164 A (PRICE JOHN F ET AL) 25 February 1997 (1997-02-25) column 2, line 58 -column 7, line 37 abstract; figures 11,12,15	1,7-11
A	US 5 362 965 A (MAGGARD STEVEN M) 8 November 1994 (1994-11-08) column 4, line 47 -column 6, line 54 abstract; table 7	1,2,7,9, 10
A	US 5 576 544 A (ROSENTHAL ROBERT D) 19 November 1996 (1996-11-19) column 2, line 43-57 abstract; figure 1	1,7,8, 10,11
A .	WO 99 34193 A (ATHERTON PHILIP GWYTHER; BROTHERTON GEORGE ALEXANDER (AU); LETHBRI) 8 July 1999 (1999-07-08) page 7; tables 1-8 abstract	1
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n on patent family members

International Application No

			00/01005
Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5680320 A	21-10-1997	AT 165446 T AT 161631 T AU 2582395 A AU 2582495 A CA 2189857 A CA 2189858 A DE 69501333 D DE 69502189 D DE 69502189 T EP 0760094 A EP 0759160 A ES 2116750 T ES 2111403 T FI 960243 A FI 960244 A JP 10500215 T JP 10500216 T SE 9401718 A WO 9531713 A WO 9531714 A US 5680321 A	15-05-1998 15-01-1998 05-12-1995 05-12-1995 23-11-1995 23-11-1995 05-02-1998 16-04-1998 28-05-1998 03-09-1998 05-03-1997 26-02-1997 16-07-1998 01-03-1998 17-01-1997 17-01-1997 06-01-1998 06-01-1998 19-11-1995 23-11-1995 21-10-1997
US 5606164 A	25-02-1997	AU 711324 B AU 6644896 A CA 2228844 A EP 0846253 A JP 11510604 T WO 9706418 A	14-10-1999 05-03-1997 20-02-1997 10-06-1998 14-09-1999 20-02-1997
US 5362965 A	08-11-1994	AT 164674 T AU 3665393 A BR 9305937 A CA 2127546 A DE 69317777 D DE 69317777 T EP 0642660 A ES 2117126 T KR 232687 B MX 9302531 A WO 9324823 A	15-04-1998 30-12-1993 02-05-1995 09-12-1993 07-05-1998 22-10-1998 15-03-1995 01-08-1998 01-12-1999 01-11-1993 09-12-1993
US 5576544 A	19-11-1996	US 5204532 A US 5068536 A US 5077476 A US 5086229 A US 5028787 A US 6066847 A AU 2251292 A CA 2111868 A EP 0590077 A JP 6508440 T MX 9202953 A WO 9222804 A AT 145988 T AU 8238791 A CA 2086019 A,C DE 69123448 D	20-04-1993 26-11-1991 31-12-1991 04-02-1992 02-07-1991 23-05-2000 12-01-1993 23-12-1992 06-04-1994 22-09-1994 01-02-1993 23-12-1992 15-12-1996 23-01-1992 28-12-1991 16-01-1997

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International Application No CA 00/01005

Patent document cited in search report		Publication date	ı	Patent family member(s)	Publication date
US 5576544	Α	L	DE	69123448 T	22-05-1997
			EP	0536304 A	14-04-1993
			ĪE	77034 B	19-11-1997
			JP	5508336 T	25-11-1993
			NZ	238717 A	26-08-1994
			WO	9200513 A	09-01-1992
			US	5362966 A	08-11-1994
			US	5436455 A	25-07-1995
			US	5438201 A	01-08-1995
			US	5574283 A	12-11-1996
			US	5237178 A	17-08-1993
			US	5365066 A	15-11-1994
			US	5218207 A	08-06-1993
			ZA	9104977 A	29-04-1992
			AT	163844 T	15-03-1998
			AU	5042190 A	13-08-1990
			CA	2045599 A,C	20-07-1990
			DE	69032126 D	16-04-1998
			DE	69032126 T	15-10-1998
			EP	0456716 A	21-11-1991
			ES	2114860 T	16-06-1998
			JP	2191434 A	27-07-1990
			JP	5058735 B	27-08-1993
			KR	145695 B	01-08-1998
			WO	9007905 A	26-07-1990
WO 9934193	Α	08-07-1999	AU	1218699 A	19-07-1999
			BR	9814406 A	10-10-2000
			ZA	9811783 A	22-06-1999

T/CA 00/01005

CLASSIFICATION OF SUBJECT MATTER
PC 7 G01N21/35 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) G01N A61B Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ° Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. Y SMALL G W ET AL: "STRATEGIES FOR COUPLING 1,11 DIGITAL FILTERING WITH PARTIAL LEAST-SQUARES REGRESSION: APPLICATION TO THE DETERMINATION OF GLUCOSE IN PLASMA BY FOURIER TRANSFORM NEAR-INFRARED SPECTROSCOPY" ANALYTICAL CHEMISTRY, US, AMERICAN CHEMICAL SOCIETY. COLUMBUS, vol. 65, no. 22, 15 November 1993 (1993-11-15), pages 3279-3289, XP000503258 ISSN: 0003-2700 Α page 3279, right-hand column -page 3283. 7,9,10 left-hand column; figure 4; tables 1.3 abstract Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not cited to understand the principle or theory underlying the considered to be of particular relevance earlier document but published on or after the international *X* document of particular relevance; the claimed invention filing date cannot be considered novel or cannot be considered to document which may throw doubts on priority claim(s) or involve an inventive step when the document is taken alone which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or other means ments, such combination being obvious to a person skilled document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 29 November 2000 12/12/2000 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Meyer, F Fax: (+31-70) 340-3016

International Application No
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C.(Continu	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	7 07, 00	7/01005
Category °	Citation of document, with indication, where appropriate, of the relevant passages	<u> </u>	Relevant to claim No.
Y	US 5 680 320 A (HELMER ULLA ET AL) 21 October 1997 (1997-10-21)		1,11
A	column 5, line 65 -column 6, line 67 abstract; figures 1-5		2,9,10
A	US 5 606 164 A (PRICE JOHN F ET AL) 25 February 1997 (1997-02-25) column 2, line 58 -column 7, line 37 abstract; figures 11,12,15		1,7-11
	US 5 362 965 A (MAGGARD STEVEN M) 8 November 1994 (1994-11-08) column 4, line 47 -column 6, line 54 abstract; table 7		1,2,7,9, 10
	US 5 576 544 A (ROSENTHAL ROBERT D) 19 November 1996 (1996-11-19) column 2, line 43-57 abstract; figure 1		1,7,8, 10,11
	WO 99 34193 A (ATHERTON PHILIP GWYTHER; BROTHERTON GEORGE ALEXANDER (AU); LETHBRI) 8 July 1999 (1999-07-08) page 7; tables 1-8 abstract		1
1			
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ation on patent family members

International Application No
T/CA 00/01005

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5680320 A	21-10-1997	AT 165446 T AT 161631 T AU 2582395 A AU 2582495 A CA 2189857 A CA 2189858 A DE 69501333 D DE 69501333 T DE 69502189 D DE 69502189 T EP 0760094 A EP 0759160 A ES 2116750 T ES 2111403 T FI 960243 A FI 960244 A JP 10500215 T JP 10500216 T SE 9401718 A WO 9531713 A WO 9531714 A US 5680321 A	15-05-1998 15-01-1998 05-12-1995 05-12-1995 23-11-1995 23-11-1995 05-02-1998 16-04-1998 28-05-1998 03-09-1998 05-03-1997 26-02-1997 16-07-1998 01-03-1998 17-01-1997 17-01-1997 06-01-1998 06-01-1998 19-11-1995 23-11-1995 21-10-1997
US 5606164 A	25-02-1997	AU 711324 B AU 6644896 A CA 2228844 A EP 0846253 A JP 11510604 T WO 9706418 A	14-10-1999 05-03-1997 20-02-1997 10-06-1998 14-09-1999 20-02-1997
US 5362965 A	08-11-1994	AT 164674 T AU 3665393 A BR 9305937 A CA 2127546 A DE 69317777 D DE 69317777 T EP 0642660 A ES 2117126 T KR 232687 B MX 9302531 A WO 9324823 A	15-04-1998 30-12-1993 02-05-1995 09-12-1993 07-05-1998 22-10-1998 15-03-1995 01-08-1998 01-12-1999 01-11-1993 09-12-1993
US 5576544 A	19-11-1996	US 5204532 A US 5068536 A US 5077476 A US 5086229 A US 5028787 A US 6066847 A AU 2251292 A CA 2111868 A EP 0590077 A JP 6508440 T MX 9202953 A WO 922804 A AT 145988 T AU 8238791 A CA 2086019 A,C DE 69123448 D	20-04-1993 26-11-1991 31-12-1991 04-02-1992 02-07-1991 23-05-2000 12-01-1993 23-12-1992 06-04-1994 22-09-1994 01-02-1993 23-12-1992 15-12-1996 23-01-1992 28-12-1991 16-01-1997

nation on patent family members

International Application No

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
US 5576544 A		DE	69123448 T	22-05-1997
		EP	0536304 A	14-04-1993
		. IE	77034 B	19-11-1997
		JP	5508336 T	25-11-1993
		NZ	238717 A	26-08-1994
		WO	9200513 A	09-01-1992
		US	5362966 A	08-11-1994
		US	5436455 A	25-07-1995
	·	บร	5438201 A	01-08-1995
**		US	5574283 A	12-11-1996
		. US	5237178 A	17-08-1993
		US	5365066 A	15-11-1994
		US	5218207 A	08-06-1993
		ZA	9104977 A	29-04-1992
		AT	163844 T	15-03-1998
**	•	AU	5042190 A	13-08-1990
		CA	2045599 A,C	20-07-1990
•		DE	69032126 D	16-04-1998
		DE	69032126 T	15-10-1998
,		EP	0456716 A	21-11-1991
		ES	2114860 T	16-06-1998
	•	JP	2191434 A	27-07-1990
		JP	5058735 B	27-08-1993
		KR .	145695 B	01-08-1998
		WO	9007905 A	26-07-1990
WO 9934193 A	08-07-1999	AU	1218699 A	19-07-1999
		BR	9814406 A	10-10-2000
		ZA	9811783 A	22-06-1999

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G01N21/35

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 G01N A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

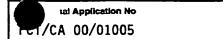
EPO-Internal

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	SMALL G W ET AL: "STRATEGIES FOR COUPLING DIGITAL FILTERING WITH PARTIAL	1,11
	LEAST-SQUARES REGRESSION: APPLICATION TO	
	THE DETERMINATION OF GLUCOSE IN PLASMA BY	
	FOURIER TRANSFORM NEAR-INFRARED	
	SPECTROSCOPY"	
	ANALYTICAL CHEMISTRY, US, AMERICAN CHEMICAL	
	SOCIETY. COLUMBUS, vol. 65, no. 22,	
	15 November 1993 (1993-11-15), pages	
	3279-3289, XP000503258	
	ISSN: 0003-2700	
A	<pre>page 3279, right-hand column -page 3283, left-hand column; figure 4; tables 1,3 abstract</pre>	7,9,10
	-/	
		Ì

Y Further documents are listed in the continuation of box C.	Patent family members are listed in annex.
Special categories of cited documents: 'A' document defining the general state of the art which is not considered to be of particular relevance 'E' earlier document but published on or after the international filing date 'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) 'O' document referring to an oral disclosure, use, exhibition or other means 'P' document published prior to the international filing date but later than the priority date claimed	 "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
Date of the actual completion of the international search	Date of mailing of the international search report
29 November 2000	12/12/2000
Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Meyer, F

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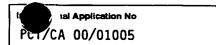




		FC1/CA 00/	01005
(Continue	RION) DOCUMENTS CONSIDERED TO BE RELEVANT		
ategory °	Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.
1	US 5 680 320 A (HELMER ULLA ET AL) 21 October 1997 (1997-10-21)		1,11
4	column 5, line 65 -column 6, line 67 abstract; figures 1-5		2,9,10
A	US 5 606 164 A (PRICE JOHN F ET AL) 25 February 1997 (1997-02-25) column 2, line 58 -column 7, line 37 abstract; figures 11,12,15		1,7-11
A	US 5 362 965 A (MAGGARD STEVEN M) 8 November 1994 (1994-11-08) column 4, line 47 -column 6, line 54 abstract; table 7		1,2,7,9, 10
A	US 5 576 544 A (ROSENTHAL ROBERT D) 19 November 1996 (1996-11-19) column 2, line 43-57 abstract; figure 1		1,7,8, 10,11
A	WO 99 34193 A (ATHERTON PHILIP GWYTHER; BROTHERTON GEORGE ALEXANDER (AU); LETHBRI) 8 July 1999 (1999-07-08) page 7; tables 1-8 abstract		1

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n on patent family members



				PUT/UA	00/01005
Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 5680320	Α	21-10-1997	AT	165446 T	15-05-1998
			AT	161631 T	15-01-1998
			AU	2582395 A	05-12-1995
			AU	2582495 A	05-12-1995
			CA	2189857 A	23-11-1995
			CA	2189858 A	23-11-1995
-			DE	69501333 D	05-02-1998
			DE	69501333 T	16-04-1998
			DE	69502189 D	28-05-1998
			DE	69502189 T	03-09-1998
			EP	0760094 A	05-03-1997
			EP	0759160 A	26-02-1997
			ES	2116750 T	16-07-1998
			ES	2111403 T	01-03-1998
			FI	960243 A	17-01-1997
			FĪ	960244 A	17-01-1997
			JР	10500215 T	06-01-1998
			JP	10500215 T	06-01-1998
			SE	9401718 A	19-11-1995
			WO	9531713 A	23-11-1995
			WO	9531713 A 9531714 A	23-11-1995
		•	US	5680321 A	23-11-1995 21-10-1997
				3000321 A	
US 5606164	Α	25-02-1997	AU	711324 B	14-10-1999
			AU	6644896 A	05-03-1997
			CA	2228844 A	20-02-1997
			EP	0846253 A	10-06-1998
			JP	11510604 T	14-09-1999
			WO	9706418 A	20-02-1997
US 5362965	Α	08-11-1994	AT	164674 T	15-04-1998
		 .	AU	3665393 A	30-12-1993
			BR	9305937 A	02-05-1995
			CA	2127546 A	09-12-1993
			DE	69317777 D	07-05-1998
			DE	69317777 T	22-10-1998
			EP	0642660 A	15-03-1995
•			ES.	2117126 T	01-08-1998
			KR	232687 B	01-12-1999
			MX	9302531 A	01-11-1993
			MO	9324823 A	09-12-1993
US 5576544	A	19-11-1996	US	5204532 A	20-04-1993
			US	5068536 A	26-11-1991
			US	5077476 A	31-12-1991
			US	5086229 A	04-02-1992
			US	5028787 A	02-07-1991
			US	6066847 A	23-05-2000
			AU	2251292 A	12 - 01-1993
			CA	2111868 A	23-12-1992
			EP	0590077 A	06-04-1994
				0590077 A 6508440 T	06-04-1994 22-09-1994
			EP		
			EP JP	6508440 T	22-09-1994 01-02-1993
			EP JP MX	6508440 T 9202953 A	22-09-1994 01-02-1993 23-12-1992
			EP JP MX WO	6508440 T 9202953 A 9222804 A 145988 T	22-09-1994 01-02-1993 23-12-1992 15-12-1996
			EP JP MX WO AT	6508440 T 9202953 A 9222804 A	22-09-1994 01-02-1993 23-12-1992

INTERNATIONAL SEARCH REPORTon on patent family members

nal Application No	
PCT/CA 00/01005	

					5., on	00/ 01005
Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 5576544	Α		DE	6912344	3 T	22-05-1997
			EP	053630	4 A	14-04-1993
			ΙE	7703		19-11-1997
			JP	550833	5 T	25-11-1993
			NZ	23871	7 A	26-08-1994
			WO	9200513	3 A	09-01-1992
			US	5362966	5 A	08-11-1994
			US	543645!	5 A	25-07-1995
			US	543820	L A	01-08-1995
			US	5574283	3 A	12-11-1996
			US	5237178		17-08-1993
			US	5365066		15-11-1994
			US	5218207		08-06-1993
			ZA	9104977		29-04-1992
			AT	163844		15-03-1998
			AU	5042190		13-08-1990
			CA	2045599	A,C	20-07-1990
			DE	69032126		16-04-1998
			DE	69032126		15-10-1998
			EP	0456716		21-11-1991
			ES	2114860		16-06-1998
			JP	2191434		27-07-1990
			JP	5058735		27-08-1993
			KR	145699		01-08-1998
			WO	9007905	A	26-07-1990
WO 9934193	Α	08-07-1999	AU	1218699) A	19-07-1999
			BR	9814406	S A	10-10-2000
			ZA	9811783	ι Δ	22-06-1999

taking into account a said "variability range".

- 4.6. The feature "rejecting data sets that are not suitable for calibration" in claim 7 (p.17 l.28) is indefinite since a criteria when to reject a said data set is missing.
- 4.7. The feature "parameters other than said analyte" in claim 8 is vague and indefinite and as such renders the scope of the claim unclear.
- The subject-matter of claims 4-6 and 8 is not supported by the description as 5. required by Article 6 PCT. A respective statement should have been added to the description (Rule 5.1(a)(iii) PCT).

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference		of Transmittal of International Search Report	
5352-89	ACTION (Form PCT/ISA/2	20) as well as, where applicable, item 5 below.	
International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)	
PCT/CA 00/01005	31/08/2000	31/08/1999	
Applicant			
AME TELEMETRIV INA			
CME TELEMETRIX INC.			
The later was 1 Court December 1			
according to Article 18. A copy is being tra	n prepared by this International Searching Authansmitted to the International Bureau.	nority and is transmitted to the applicant	
This International Search Report consists It is also accompanied by	of a total of sheets. a copy of each prior art document cited in this	renort	
		Toport.	
1. Basis of the report			
 a. With regard to the language, the language in which it was filed, unl 	international search was carried out on the bas ess otherwise indicated under this item.	sis of the international application in the	
the international search w Authority (Rule 23.1(b)).	as carried out on the basis of a translation of th	ne international application furnished to this	
b. With regard to any nucleotide an was carried out on the basis of the	d/or amino acid sequence disclosed in the in	ternational application, the international search	
	e sequence listing : anal application in written form.		
filed together with the inte	rnational application in computer readable form	n.	
furnished subsequently to	this Authority in written form.		
furnished subsequently to	this Authority in computer readble form.		
the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.			
		s identical to the written sequence listing has been	
2. Certain claims were four	nd unsearchable (See Box I).		
3. Unity of invention is lack	•		
4. With regard to the title,			
4. With regard to the title , the text is approved as sul	hmitted by the applicant		
	hed by this Authority to read as follows:		
—	A SPECTROSCOPIC DEVICE		
5 MCH consider the chief			
5. With regard to the abstract,	hmitted by the englished		
the text is approved as sul		v as it appears in Box III. The applicant may	
the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.			
6. The figure of the drawings to be publi	_	2	
as suggested by the applic		None of the figures.	
because the applicant fails			
	characterizes the invention.		

PATENT COOPERATION

PCT

1	\TY_				•
	REC'D	30	JUL	2001	
	WIPO		F	CT	

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference		
5352-89	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No.	International filing date (day/month	/year) Priority date (day/month/year)
PCT/CA00/01005	31/08/2000	31/08/1999
International Patent Classification (IPC) or r G01N21/35	national classification and IPC	
Applicant		
CME TELEMETRIX INC.		
This international preliminary exar and is transmitted to the applicant	nination report has been prepared according to Article 36.	by this International Preliminary Examining Authority
2. This REPORT consists of a total of	f 8 sheets, including this cover sh	eet.
been amended and are the ba	ed by ANNEXES, i.e. sheets of the sis for this report and/or sheets co 607 of the Administrative Instructio	e description, claims and/or drawings which have ontaining rectifications made before this Authority ns under the PCT).
These annexes consist of a total of	f sheets.	
		•
3. This report contains indications rel	ating to the following items:	
I ⊠ Basis of the report		
II Priority		
	opinion with regard to novelty inve	ntive step and industrial applicability
IV Lack of unity of inventi		Thive step and industrial applicability
V 🛛 Reasoned statement u		ovelty, inventive step or industrial applicability;
VI Certain documents cit	-	
VII Certain defects in the i		
	n the international application	
	The international application	
Date of submission of the demand	Date of co	mpletion of this report
20/02/2001	26.07.200	1
Name and mailing address of the intemational preliminary examining authority:	I Authorized	officer Smillion
European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656	Meyer, F	The state of the s
Fax: +49 89 2399 - 4465	Telephone	No. +49 89 2399 2233

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/CA00/01005

I. Basis of the re	ep (rt
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1.	nents of the international application (Replacement sheets which have been furnished to response to an invitation under Article 14 are referred to in this report as "originally filed" this report since they do not contain amendments (Rules 70.16 and 70.17)):					
	1-1	5	as originally filed			
	Cla	aims, No.:				
	1-1	1	as originally filed			
	Dra	awings, sheets:				
	1/5	-5/5	as originally filed			
2.	Wit lan	h regard to the lang guage in which the i	uage, all the elements marked above were available or furnished to this Authority in the nternational application was filed, unless otherwise indicated under this item.			
	These elements were available or furnished to this Authority in the following language: , which is:					
		the language of a t	ranslation furnished for the purposes of the international search (under Rule 23.1(b)).			
		the language of pu	blication of the international application (under Rule 48.3(b)).			
		the language of a t 55.2 and/or 55.3).	ranslation furnished for the purposes of international preliminary examination (under Rule			
3.			leotide and/or amino acid sequence disclosed in the international application, the y examination was carried out on the basis of the sequence listing:			
		contained in the int	remational application in written form.			
		filed together with t	he international application in computer readable form.			
		☐ furnished subsequently to this Authority in written form.				
		☐ furnished subsequently to this Authority in computer readable form.				
		The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.				
The statement that the information recorded in computer readable form is identical to the writte listing has been furnished.						
4.	The	amendments have	resulted in the cancellation of:			
		the description,	pages:			
		the claims,	Nos.:			

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/CA00/01005

	the drawings,	sheets:			
5. 🗆	This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):				
	(Any replacement sh report.)	neet containing such amendments must be referred to under item 1 and annexed to this			

- 6. Additional observations, if necessary:
- V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- 1. Statement

Novelty (N)

Yes: Claims 1-11

No: Claims

Inventive step (IS)

Yes: Claims 2-10

No: Claims 1,11

Industrial applicability (IA)

Yes: Claims 1-11

No: Claims

2. Citations and explanations see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted: see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made: see separate sheet

1. Reference is made to the following documents:

D1: G.W. Small et al., Anal. Chem. 65 (1993) 3279-3289

D2: US 5 680 320 D3: US 5 606 164 D4: US 5 362 965 D5: US 5 576 544

Re Item V

- 2. The present application does not meet the requirements of Article 33(1) PCT, because the subject-matter of **claims 1 and 11**, <u>as far as it can be understood</u> (see paragraph 4. below), does not appear to involve an inventive step in the sense of Article 33(3) PCT.
- 2.1. Document D1, which is considered to represent the closest prior art, discloses a method of calibrating an NIR spectrometer for providing a non-invasive measurement of an analyte level in a sample (abstract, I.3-7; p.3279, right col., §3, I.2,8; p.3280, left col., §4, I.7 - p.3280, right col., §1, I.3), comprising: providing a plurality of calibration algorithms (p.3281, left col., §1, I.1-3; p.3282, left col., §3, I.1-3); taking a set of non-invasive measurements on said sample with said spectroscopic device (p.3281, left col., §1, I.3-6); calculating a set of analyte levels for each of the algorithms "in response to" the set of non-invasive measurements (p.3282, left col., §4, I.3-4; Fig.4), each of the sets of analyte levels "being characterized by a variability range (see the columns "conc (mM)" in Table I on p.3280), a slope (see Fig.4), an "R2" (see Table III) and a standard error of prediction (p.3282, left col., §4, I.4-5; Table III); and selecting an appropriate calibration algorithm by using a "suitability score" based on the variability range (p.3281, left col., §1, l.10-12; p.3283, left col., §1 l.4-7) and the standard error of prediction for each of the sets of analyte levels (p.3282, left col., §4, I.7-9). The subject-matter of independent claim 1 of the present application differs from the method disclosed in D1 only in that, for selecting an appropriate calibration algorithm, a "suitability score" is used which is additionally based on the slope and "R2".

EXAMINATION REPORT - SEPARATE SHEET

The problem to be solved by the present invention may therefore be regarded as providing an improved "suitability score" for selecting an appropriate calibration algorithm.

The skilled person would contemplate combining the teaching of D1 with the teaching of D2 which also discloses a method of calibrating an NIR spectrometer (col.6 l.1,38-39). In D2, a calibration model is developed (see abstract, l.6) and it is explicitly stated that for a "very good validity and preciseness of the (calibration) model" (see col.11 l.66-67), "ideally, r2 (i.e. the unadjusted correlation coefficient), and k (i.e. the slope of the fit curves) should be as close to 1 as possible; while SEP (i.e. the standard error of prediction) ... should be as close to 0 as possible" (see col.11 l.63-65).

In view of the paragraph above, it would be obvious for the skilled person to additionally take into account the slope and "r2" when selecting an appropriate calibration algorithm. Thus, the subject-matter of claim 1 does not appear to involve an inventive step and does not satisfy the criterion set forth in Articles 33(1) and 33(3) PCT.

- 2.2. Dependent claim 11 does not appear to contain any additional feature which, in combination with the features of claim 1, meets the requirements of the PCT with respect to inventive step, since its additional feature is already disclosed in D1 (see p.3280, left col., §4, I.7 - p.3280, right col., I.3; p.3279, right col., §3, I.2,8).
- 2.3. Documents D3-D5 each disclose a method of calibrating a spectroscopic device for providing a non-invasive measurement of an analyte level in a sample comprising all the features of independent claim 1 of the present application, except that only the standard error of prediction (D3: col.13 l.61 - col.14 l.13), only the standard error of prediction and "R" (D4: col.15 l.21-25) or only "R2" (D5: col.4 1.40-52) is used to select an appropriate calibration algorithm out of a plurality of provided calibration algorithms.
 - Combination of the teachings of either D3, D4 or D5 with D2 appears to be obvious (Article 33(3) PCT) for reasons similar to those already pointed out in paragraph 2.1. above.
- 2.4. The subject-matter of dependent claim 2 or dependent claim 7 is neither disclosed nor hinted at in any of the available prior art documents. Both claims

hence would meet the requirements of the PCT with respect to novelty (Article 33(2) PCT) and inventive step (Article 33(3) PCT).

2.5. Claims 3-6 and 8-10 are dependent on claims 2 and 7, respectively, and therefore also satisfy the requirements of Article 33(1) PCT.

Re Item VII

- 3.1. Independent **claim 1** is not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
- 3.2. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1-D5 is not mentioned in the description, nor are these documents identified therein.
- 3.3. In the description (p.7 I.34-35), the applicant incorporates by reference the disclosure of a US patent. If the applicant has the opinion, that the said disclosure contains matter which is essential for carrying out the invention as meant by Article 5 PCT, the applicant should expressly incorporate this matter into the description. Otherwise, this passage should be deleted from the description (see the PCT Guidelines II 4.17).
- 3.4. In order to make clear that the results shown in figures 1 and 4 are achieved using a known calibration method, the term "prior art" should be added to these figures.

Re Item VIII

4. The application does not meet the requirements of Article 6 PCT, because **claims**1, 7 and 8 are not clear.

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EXAMINATION REPORT - SEPARATE SHEET

- 4.1. In **claim 1** ("calculating a <u>predicted</u> set of analyte levels", p.16 l.8), it is not at all clear in what way the said set of analyte levels should be <u>predicted</u>.
- 4.2. Due to the vague formulation in claim 1 "calculating a ... set of analyte levels ... in response to the set of non-invasive measurements" (p.16 l.8-10), it is not clear, whether (and how) the said measurements are used to calculate said set of analyte levels.
- 4.3. The formulation in **claim 1** "each of the predicted sets of analyte levels <u>being</u> <u>characterized by</u> a variability range, a slope, an R² ... and a standard error of prediction" (p.16 l.10-13) does not include that the said variability range, slope, R² and standard error of prediction are <u>determined</u>, but which appears to be essential for the proceeding "selection step" (p.16 l.14-17). The scope of the claim hence is obscure.
- 4.4. In **claim 1** the terms "variability range", "slope" and "standard error of prediction" are indefinite since they have not been defined in relation to any variable (see p.12 l.8, p.10 l.14-15, p.12 l.1-3).
 - The term "R²" is indefinite, since the proceeding explanation given in brackets is not comprised in the subject-matter of the claim. Only reference numerals should be placed in brackets, see Rule 6.2(b) PCT. In this case, it appears that "R²" should be placed in brackets and said explanation should be incorporated into the text of the claim.
 - Even further confusing is the fact that said explanation given in brackets contradicts the definition of "R" given in the description on p.12 I.10-11.
- 4.5. The feature "a suitability score based on the variability range, the slope, the R² and the standard error of prediction ..." in **claim 1** (p.16 l.15-17) is obscure for several reasons:
 - (i) The term "suitability score" does not appear to be a term well-known in the art. The skilled person would not know what has to be understood by this term.
 - (ii) The expression "a suitability score <u>based on</u> ..." is vague and indefinite.
 - (iii) The said feature furthermore contradicts the description (see p.12 l.26) where the only definition of a said "suitability score" is given, but without